

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

Please add new claims 31-34 so that the pending claims read as follows:

1. (Canceled) A vertebral implant for insertion between adjacent vertebrae

having anterior and posterior faces comprising:

 a superior support positioned upon a vertebral surface, the superior support having a posterior edge which is flush with a posterior vertebral face, the superior support having an arcuate trough formed therein;

 an inferior support positioned upon a vertebral surface in facing relation to the superior support such that a posterior edge of the inferior support is flush with a posterior vertebral face, the inferior support having an arcuate trough formed therein;

 a two part shell positioned intermediate the superior and inferior supports, the two part shell having arcuate upper and lower surfaces that correspond to the arcuate troughs formed within the superior and inferior supports;

 a threaded screw positioned within the two part shell, rotation of the screw causing its lateral movement to thereby adjust the spacing between the two parts of the shell.

2. (Canceled) A vertebral implant for insertion into an intervertebral space

having anterior and posterior areas comprising:

 superior and inferior supports positioned upon a vertebral surface in facing relation to one another, both supports being positioned in the posterior area of the intervertebral space;

an insert positioned intermediate the superior and inferior supports, the insert adapted to absorb forces generated in the intervertebral space.

3. (Canceled) The implant as described in claim 2 wherein the upper and lower portions are interconnected via a threaded element, wherein movement of the threaded element causes relative movement of the upper and lower portions.

4. (Canceled) The implant as described in claim 3 wherein the upper and lower portions are interconnected via a threaded element, wherein movement of the threaded element causes relative movement of the upper and lower portions.

5. (Canceled) The implant as described in claim 2 wherein the superior and inferior supports each include lips that are adapted to hang over an edge of the vertebral body.

6. (Canceled) A vertebral implant specifically adapted for posterior insertion comprising:

a superior support positioned upon a vertebral surface, the superior support having a posterior edge which is flush with a posterior vertebral face;

an inferior support positioned upon a vertebral surface in facing relation to the superior support such that a posterior edge of the inferior support is flush with a posterior vertebral face;

a member positioned intermediate the superior and inferior supports.

7. (Canceled) The vertebral implant as described in claim 6 wherein the member is in the form of a shell with arcuate upper and lower portions.

8. (Canceled) The vertebral implant as described in claim 6 within the member is a dampening matrix.

9. (Canceled) The vertebral implant as described in claim 6 wherein the superior and inferior supports include an overhanging lip portion.

10. (Canceled) The vertebral implant as described in claim 6 wherein a spring is positioned between the superior and inferior supports.

11-20. (Canceled)

21. (Previously Presented) A surgical method for replacing damaged fibrocartilage between facing superior and inferior vertebrae in a patient's spine, each vertebrae having a spinous process, comprising the steps of:

making a posterior incision into a patient's back in the vicinity of said damaged fibrocartilage;

through said posterior incision, removing damaged fibrocartilage between said superior and inferior vertebrae;

inserting posteriorly at least two permanently articulating vertebral implant devices between said superior and inferior vertebrae which permanently allows continued movement of said vertebrae with respect to one another wherein there is at least one of said articulating vertebral implant devices on each side of a vertical medial plane defined by the spinous processes of said superior and inferior vertebrae.

22. (Previously Presented) The surgical method of claim 21 wherein said articulating devices each comprise a cushioning member sandwiched between a superior and an inferior support wherein said superior support is placed into fixed contact with said superior vertebrae and said inferior support is placed into fixed contact with said inferior vertebrae.

23. (Previously Presented) A surgical method for replacing damaged fibrocartilage between facing superior and inferior vertebrae in a patient's spine, each vertebrae having a spinous process, comprising the steps of :

making a posterior incision into a patient's back in the vicinity of said damaged fibrocartilage;

through said posterior incision, removing damaged fibrocartilage between said superior and inferior vertebrae;

inserting posteriorly at least two permanently articulating vertebral implant devices between said superior and inferior vertebrae which permanently allows continued movement of said vertebrae with respect to one another;

wherein each articulating device comprises a spring sandwiched between a superior and an inferior support wherein said superior support is placed in fixed contact with said superior vertebrae and said inferior support is placed into fixed contact with said inferior vertebrae; and,

there is at least one of said articulating vertebral implant devices on each side of a vertical medial plane defined by the spinous processes of said superior and inferior vertebrae.

24. (Previously Presented) A surgical method for replacing damaged fibrocartilage between facing superior and inferior vertebrae in a patient's spine, each vertebrae having a spinous process, comprising the steps of :

making a posterior incision into a patient's back in the vicinity of said damaged fibrocartilage;

through said posterior incision, removing damaged fibrocartilage between said superior and inferior vertebrae;

inserting posteriorly at least two permanently articulating vertebral implant devices between said superior and inferior vertebrae which permanently allows continued movement of said vertebrae with respect to one another;

wherein each articulating device comprises a dampening matrix including a hydrogel core sandwiched between a superior and an inferior support wherein said superior support is placed in fixed contact with said superior vertebrae and said inferior support is placed into fixed contact with said inferior vertebrae; and,

there is at least one of said articulating vertebral implant devices on each side of a vertical medial plane defined by the spinous processes of said superior and inferior vertebrae.

25. (Previously Presented) A surgical method for replacing damaged fibrocartilage between facing superior and inferior vertebrae in a patient's spine, each vertebrae having a spinous process, comprising the steps of :

making a posterior incision into a patient's back in the vicinity of said damaged fibrocartilage;

through said posterior incision, removing damaged fibrocartilage between said superior and inferior vertebrae and removing the spinous process for each of said superior and inferior vertebrae;

inserting posteriorly at least two permanently articulating vertebral implant devices between said superior and inferior vertebrae which permanently allows continued movement of said vertebrae with respect to one another wherein there is at least one of said

articulating vertebral implant devices on each side of a vertical medial plane defined by the spinous processes of said superior and inferior vertebrae.

26. (Previously Presented) A surgical method for replacing damaged fibrocartilage between facing surfaces of superior and inferior vertebrae in a patient's spine, each vertebrae having a spinous process, comprising the steps of:

making a posterior incision into a patient's back in the vicinity of said damaged fibrocartilage;

through said posterior incision, removing said damaged fibrocartilage between said superior and inferior vertebral surfaces;

creating channels in said facing superior and inferior vertebral surfaces;

inserting posteriorly at least two permanently articulating vertebral implant devices between said superior and inferior vertebral surfaces which permanently allows continued movement of said vertebrae with respect to one another wherein portions of said articulating vertebral implant devices are received within said superior and inferior vertebral channels and further wherein there is at least one of said articulating vertebral implant devices on each side of a vertical medial plane defined by the spinous processes of said superior and inferior vertebrae.

27. (Previously Presented) The surgical method of claim 26 wherein said channels are formed as troughs running approximately parallel to the said vertical medial plane defined by said spinous processes of said superior and inferior vertebrae.

28. (Previously Presented) The surgical method of claim 26 wherein said articulating devices each comprise a cushioning member sandwiched between a superior and an

inferior support wherein said superior support is shaped to be received within a channel formed in said superior vertebrae and said inferior support is shaped to be received within a channel formed in said inferior vertebrae.

29. (Previously Presented) The surgical method of claim 28 wherein said cushioning member is a spring or a dampening matrix.

30. (Previously Presented) The surgical method of claim 28 wherein protrusions are formed into one or more of said supports which penetrate into vertebral tissue.

31. (New) A surgical method for replacing damaged fibrocartilage between facing superior and inferior vertebrae in a patient's spine, each vertebrae having a spinous process, comprising the steps of:

making a posterior incision into a patient's back in the vicinity of said damaged fibrocartilage;

through said posterior incision, removing damaged fibrocartilage between said superior and inferior vertebrae and attaching two sets of supports to each of said superior and inferior vertebrae, wherein each support on said superior vertebrae faces a support on said inferior vertebrae;

forming two sets of permanently articulating vertebral implant devices between said superior and inferior vertebrae by affixing a cushioning member between each set of facing superior and inferior supports.

32. (New) The surgical method of claim 31 wherein said cushioning member is a spring or dampening matrix.

Appl. No. 10/696,727
Amdt. dated April 9, 2008
Reply to Office Action of October 10, 2007

33. (New) The surgical method of claim 31 wherein there is at least one of said articulating vertebral implant devices on each side of a vertical medial plane defined by the spinous processes of said superior and inferior vertebrae.

34. (New) The surgical method of claim 31 wherein, after removal of said damaged fibrocartilage, channels are formed in each of said superior and inferior vertebrae to allow said supports to be more securely attached to said vertebrae.